DETAILED ACTION

Examiner's Note

1. Examiner apologizes for the indication of allowable subject matter in the previous telephone communications. However, upon further review it has been determined that the prior art reads upon the independent claims.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Donald Daley on 1/28/2009.

The application has been amended as follows:

3. Claim 1, line 11, "an orientation" is changed to -- a rotational orientation --.

4. Claim 1, lines 12 and 15, "orientation" is changed to -- rotational orientation --.

5. Claim 17, the claim is replaced with the following:

-- 17. (Currently Amended) Device according to claim 1, wherein the irradiating means irradiate the container substantially from the top or bottom. --

6. Claim 19, line 8, "an orientation" is changed to -- a rotational orientation --.

7. Claim 19, line 15, "orientation" is changed to -- rotational orientation --.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 15 recites the limitation "second recording means" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim. For purposes of examination, examiner disregards the word "second" and understands that the single recording is compared to multiple reference images.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4, 7-9, 12-15, 19, 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lottici (EP 0 872 724).

9. As to claim 1, Lottici teaches a device for determining a possible presence of contamination of a container with a decorative exterior, comprising:

irradiating means (Figure 1, element 14) for irradiating the container with at least a first wavelength,

recording means (Figure 1, element 13) for recording a radiation sample of radiation during interaction of the radiation with at least a part of the container,

rotational orientation determining means (column 5, line 47 – column 6, line 43) for determining a rotational orientation of the container relative to the first recording means, and

comparing means (column 6, lines 15-28) for comparing the sample to a reference matching the rotational orientation of the container relative to the first recording means during the recording to determine the possible presence of contamination.

While Lottici fails to explicitly teach determining and comparing the rotational orientation, it would have been obvious that the invention of Lottici is sufficient to perform such a function from analyzing the image slices (column 6, lines 2-5) and identifying components (column 6, lines 23-24) that would indicate orientation. It would have been obvious to one of ordinary skill in the art at the time of invention to determine and compare the rotational orientation in order to better analyze the labels.

10. As to claim 4, Lottici teaches everything claimed, as applied above in claim 1, in addition the orientation determining means comprise recording means for making at least one recording for the purpose of determining the orientation of the container relative to the first recording means on the basis of the mutual position and orientation of the recording means and the container at the time of the at least one recording.

11. As to claim 7, Lottici teaches everything claimed, as applied above in claim 1, in addition the first radiation sources are positioned behind the container relative to the container during making of the recording wherein the radiation irradiates the container

(Figure 1, the bottles rotate more than 360 degrees therefore at some point the sources are behind the bottles).

12. As to claim 8, Lottici teaches everything claimed, as applied above in claim 1, in addition selecting means for selecting a part of the recording of a part of the container as assessment part, on the basis of which part the assessment is carried out (column 6, lines 2-5).

13. As to claim 9, Lottici teaches everything claimed, as applied above in claim 1, in addition the recording means comprise at least one camera (Figure 1, element 13).

14. As to claim 12, Lottici teaches everything claimed, as applied above in claim 1, in addition composing means for composing, on the basis of at least one of the radiation sample and parameters, a robust reference image or a reference image with permissible deviation values (column 6, lines 6-9), on the basis of which image acceptable deviations in the decorative exterior within a series of containers can be taken into account during selection of containers (column 6, lines 10-28).

15. As to claim 13, Lottici teaches everything claimed, as applied above in claim 1, in addition processing means for producing, on the basis of the radiation sample or the assessment part, a flat representation thereof (column 6, lines 2-5).

16. As to claim 14, Lottici teaches everything claimed, as applied above in claim 13, in addition the first comparing means are embodied in order to compare the flat representation to the robust reference image (column 6, lines 6-28).

17. As to claim 15, Lottici teaches everything claimed, as applied above in claim 14, in addition second comparing means (column 6, lines 22-28) for comparing a recording

of the second recording means to a second reference image or robust reference image for the purpose of detecting deviations on the decorative exterior.

18. As to claims 19 and 22, the method would flow from the apparatus of claim 1.

19. As to claim 21, the method would flow from the apparatus of claim 1. Examiner refers applicant to Figure 1, element 1.

Claims 2, 6, 20, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lottici in view of Axelrod (United States Patent 5,444,535).

20. As to claim 2, Lottici teaches everything claimed, as applied above in claim 1, in addition a second irradiating means (Figure 1, elements 14). Lottici fails to teach means for emitting radiation of at least a second wavelength. However to do so is well known as taught by Axelrod. Axelrod teaches emitting radiation of at least a second wavelength (Figure 10, elements 1 and column 4, line 67 – column 5, line 4). It would have been obvious to one of ordinary skill in the art at the time of invention to emit radiation of at least a second wavelength in order to compensate for various absorption bands.

21. As to claim 6, Lottici teaches everything claimed, as applied above in claim 1, with the exception of polarizing means for polarizing radiation of the irradiating means. However to do so is well known as taught by Axelrod. Axelrod teaches polarizing means for polarizing radiation of the irradiating means (Figure 9, element 5). It would have been obvious to one of ordinary skill in the art at the time of invention to have polarizing means for polarizing radiation of the irradiating means, in order to enhance the rejection rate of reflected noise without undue collateral defect-signal attenuation.

22. As to claims 20 and 23, the method would flow from the apparatus of claim 2. Examiner refers applicant to Axelrod Figure 10.

Claims 5, 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lottici in view of Axelrod, and in further view of Jacobs (United States Patent 4,160,601).

23. As to claim 5, Lottici in view of Axelrod teaches everything claimed, as applied above in claim 2, with the exception of filter means for making recordings in optically independent manner with the recording means on the basis of radiation of the first or of the second wavelength. However to do so is well known as taught by Jacobs. Jacobs teaches filter means for making recordings in optically independent manner with the recording means on the basis of radiation of the first or of the second wavelength (Figure 1, steps 20-30). It would have been obvious to one of ordinary skill in the art at the time of invention to have filter means for making recordings in optically independent manner with the recording means on the basis of radiation of the first or of the second wavelength, in order to determine various absorption spectrums.

24. As to claim 10, Lottici in view of Axelrod in further view of Jacobs teaches everything claimed, as applied above in claim 5, in addition Jacobs teaches the filter means comprise an optical filter (Figure 1, step 20). It would have been obvious to one of ordinary skill in the art at the time of invention to have the filter means comprise an optical filter, in order to highlight the wavelength intensities.

25. As to claim 11, Lottici in view of Axelrod in further view of Jacobs teaches everything claimed, as applied above in claim 5, in addition Jacobs teaches the filter

means comprise an electronic filter (Figure 1, steps 90, 100). It would have been obvious to one of ordinary skill in the art at the time of invention to have the filter means comprise an electronic filter, in order to more easily carry out multispectral analysis.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lottici in view of Krieg et al (United States Patent 5,405,014).

26. As to claim 17, Lottici teaches everything claimed, as applied above in claim 1, with the exception of the irradiating means irradiate the container substantially from the top or bottom. However to do so is well known as taught by Krieg. Krieg teaches the irradiating means irradiate the container substantially from the top or bottom (Figure 1). It would have been obvious to one of ordinary skill in the art at the time of invention to have the irradiating means irradiate the container substantially from the top or bottom, in order to more easily identify contaminants that have settled to the bottom of the bottle.

Allowable Subject Matter

Claims 3-4, 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

27. As to claim 3, the prior art of record, taken alone or in combination, fails to disclose or render obvious a device comprising second recording means for determining, by way of a second recording, the orientation of the container relative to the first recording means on the basis of the mutual positions and orientations of the

first recording means, the second recording means and the container at the time of the first and second recording, in combination with the rest of the limitations of the claim.

28. As to claim 4, the prior art of record, taken alone or in combination, fails to disclose or render obvious a device wherein the orientation determining means comprise recording means for making at least one recording for the purpose of determining the orientation of the container relative to the first recording means on the basis of the mutual position and orientation of the recording means and the container at the time of the at least one recording, in combination with the rest of the limitations of the claim.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JARREAS C. UNDERWOOD whose telephone number is (571) 272-1536. The examiner can normally be reached on Monday-Friday 0530-1400.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley can be reached on (571) 272-2059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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